NASA IV&V FACILITY EDUCATOR RESOURCE CENTER

STUDENT WORKSHOP 2011-2012 CALENDAR

Contact Amy Phillips to schedule a workshop
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SEPTEMBER	OCTOBER	NOVEMBER
20 Robotics	**11** Rocketry	**1** Planetary Geology
	25 Living and Working in Space	**8** Electromagnetic Spectrum

DECEMBER	JANUARY	FEBRUARY
6 Living and Working in Space	**17** Planetary Geology	**7** Robotics
13 Robotics	**24** Electromagnetic Spectrum	**21** Living and Working in Space

MARCH	APRIL	MAY
6 Planetary Geology	**10** Electromagnetic Spectrum	**15** Robotics
20 Rocketry	**24** Rocketry	**22** Rocketry

Student Workshop Descriptions

*All student workshops are **FREE** and will be conducted at the NASA IV&V ERC. These workshops will run from 11:30 a.m.– 2:30 p.m. and have a capacity of no more than 18 students. Teachers will be responsible for the transportation of the students and provide the students lunch before they arrive. These workshops are for students grades 5-8.*

Robotics

Students will learn the definition of a robot and how they are used in our everyday lives and by NASA. Students will learn basic programming skills using a LEGO NXT robot to utilize mathematical problems to solve a maze and capture a satellite using a robotic arm.

Rocketry

Students will learn about the early studies of rocketry up through the current use of rockets by NASA and will simulate a rocket's performance using RockSim software. Force, drag, lift, and Newton's Three Laws of Motion are some of the physics principles that students will be exploring during the process of building and launching a model rocket.

Living and Working in Space

From adequate nutrition to muscle loss, students will learn about how space travel affects the human body. Students will learn the importance of wearing a space suit, the inconvenience of completing everyday activities, and how to stay physically fit. We will even explore how to play basketball in space!

Planetary Geology

Students will study the surface of the planets in the solar system to get an idea about when and how the planets were formed. Students will engage in hands-on activities to study craters, volcanoes and geologic features on Mars from data obtained by NASA spacecrafts.

Electromagnetic Spectrum

In order to make the invisible detectable, students will use spectroscopes, radios, infrared and ultraviolet detectors to explore the properties of the electromagnetic spectrum. Students will learn how scientists use different components of the spectrum to observe the physical and chemical properties of various space objects, such as black holes and galaxies.